

Rating for BWMS Performance Data

The following is a means for rating available ballast water management system (BWMS) performance data for determination if the data can be used for any subsequent analysis for the EPA Vessel General Permit. Scores were developed based on the data and information available for each BWMS reviewed.

Score	Score Description
5	Complete project-specific Quality Assurance Project Plan (QAPP) with details on sampling methods, sample collection protocol and details of specific sampling events, including dates, sample volumes, replicates, BWMS flow rates and any deviations from plan.
4	References QAPP but documents do not include the QAPP or a means for obtaining QAPP. Information contains details on specific sampling methods and sample collection, including dates, sample volumes, replicates, BWMS flow rates and specifics about sampling event.
3	Mentions general quality assurance (QA) and quality control (QC) measures but does not include or reference a QAPP. Information contains details on specific sampling methods and sample collection, including dates, sample volumes, replicates, BWMS flow rates and specifics about sampling event.
2	Mentions general QA/QC measures but does not include sufficient information on the specific sampling event (i.e., dates of specific sample collection, volumes, replicates).
1	Provides general description of methodology for collecting samples and analyses conducted, but does not mention any QA/QC measures. Information is not specific to BWMS tested and seems to be repetitive of other reports from the same laboratory. Information includes data points but does not reference dates specific samples were collected, sample volumes or replicates.
0	No description of QAPP, quality measures or details on sample collection and analysis methods.

Footnote: Existing performance data is from Type Approval of BWMS according to the International Maritime Organization (IMO) Guidelines for Approval of Ballast Water Management Systems (G8) resolutions MEPC.125(53) and MEPC.174(58). The International approval system does not include certification of testing facilities, requirements for QAPPs, and the use of results from replicate analyses to reject data.